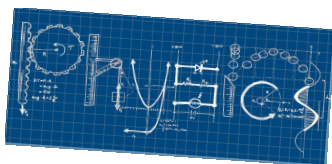


Welcome to PHYSICS!!!

SECA Physics
Tuesday 10 June 2014



H. Leslie Grebe
Room C-244



* Get started on the opening activity:

On an index card

- Write your name (what you would like to be called)
- If you were MASTER of the UNIVERSE (kind of like having a genie grant wishes), what ONE thing would you change?

We'll share these in a little while

Sep 7-7:04 AM

Summer School: About this class

1. What have you heard?

- 18 days
- What a deal!

2. Expectations

3. Points?

Folders?

4. Topics

Science or not???

Biology ✓

Psychology ~

Zoology ✓

Geology ✓

~~Astrology~~ - FORTUNE TELLER

vs. Astronomy = SCIENCE OF SPACE

Sep 7-7:09 AM

Our 3 Questions

- * Most periods except test/project times
- * 3 Questions on the topics of the class
- * Main source of classwork points
- * I am happy to give full credit when I have no concerns about someone giving or getting help with the answers.

You can't get your points if you don't have your **NAME!!!**

Name	Period
1.	
2.	
3.	

Sep 9-7:32 AM

Card Sort: SCALE

With the people at your table, sort the cards from smallest to biggest.

Were any tricky or hard? Any extra easy?

http://www.youtube.com/watch?v=sTBIr65cL_E



Apr 10-7:41 AM

Getting to Know You...

- Fill out the sheet to let me know more about you
- Turn this sheet in to front box as you leave

AND / OR

Two truths and a lie

On 3 index cards - 1 thing about yourself on each

- two should be true things
- one thing should be made-up (a lie)
- > **appropriate** to share at school

Nov 15-7:20 AM

Space

1. Record names of people at your table
2. Find out favorite ice cream (or dessert) for everyone
3. Split the paper in half...

What we've already
learned about space...

MOON - GOING THERE
PLANETS - ATMOSPHERE
SOME WATER?

SUN - HOT

NO OXYGEN

SOLAR SYSTEM

ORDER OF PLANETS

SATURN IS COLD

METEORS & ASTEROID

What we'd like to learn
about space...

GALAXIES
MORE? HOW? WHY?
OTHER PLANETS?

BLACK HOLES

PLANETS FORMED?
WATER?

WHY CAN'T LIVE THERE?

Sep 21-2:13 PM

Welcome back...

H. Leslie Grebe

* Pick up:

- white board, marker, cloth
- slip of paper (for later)

Opening Question:

39,900,000,000,000,000 m

What is this number? Discuss it with a neighbor...

DISTANCE TO NEAREST STAR
PROXIMA CENTAURI

Sep 7-7:04 AM

Space is REALLY big!!!!

<http://www.youtube.com/watch?v=HEeh1BH34Q>

Need a short form = scientific notation

Let's practice with the white boards...

...or alternate worksheet...

What does 4^2 mean?

$$4^2 = 4 \cdot 4 = 16 \quad 4 \times 2 = 4 + 4$$

What does 3^3 mean?

$$3 \cdot 3 \cdot 3 = 9 \cdot 3 = 27$$

In 10^{26} , what is the exponent?

26

10s are easiest:

$$10^2 = 100$$

$$10^3 = 1000$$

$$1 \times 10^4 = 10,000$$

What about 10^1 ?

$$= 10$$

$$10^0 = 1$$

$$10^{-1} = 0.1 = .1$$

Light travels 300,000,000 meters each second...

Shorter way to write that?

$$3.0 \times 10^8$$

Base between 1 & 9.999999...

Beginning question: How do we write

39,900,000,000,000,000 m

in scientific notation?

$$3.99 \times 10^{16}$$

Distance to sun is 9.29×10^7 miles. What is that as a standard number?

9.2900000000000000

Practice on worksheet

Brain turned on = participation

Will be the source of the daily 3...

$$1 \times 10^0$$

Sep 21-2:13 PM

What did you get?

How do you write a billion in scientific notation?

$$1 \times 10^9$$

In 6.5×10^7 , what's the exponent?

7

Neptune: What's 2.7×10^9 as a standard number?

2,700,000,000

$$2 \times 10^9$$

2.77

Nov 16-7:37 AM

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Sep 9-7:32 AM

1. Write a **million** in scientific notation

$$\underline{1 \times 10^6} \quad 10^6 = 1,000,000$$

2. In 2.7×10^9 , what is the exponent?

9

3. Which of these is 1.7×10^9 as a standard number?

- a. 179
- ☒ b. 1,700,000,000
- c. 17,000,000,000

Jun 10-10:34 AM

Welcome back...

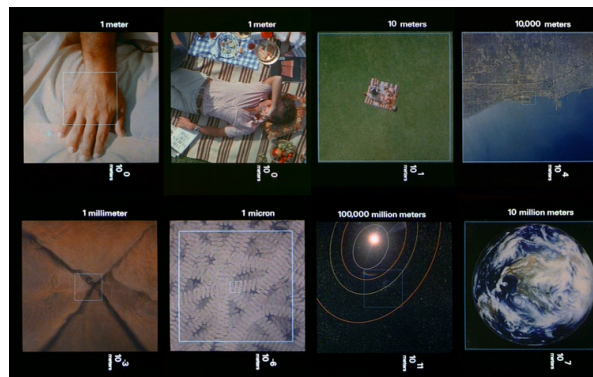
H. Leslie Grebe

* Pick up:
-worksheet

<http://www.youtube.com/watch?v=vRjGarlCaI4>



<http://www.youtube.com/watch?v=0fKBhvDjuy0>



Opening Question:

Where else (besides astronomy) would scientific notation help us with really big / small numbers?

Sep 7-7:04 AM

Computer worksheet

Think of places that are very different population from your town.

Look up the population and put it in the right row. Do 5 rows.

Then think about different sizes in space. I did the radius of the moon which is 1700 km. You could do radius of other things or look up things like distance to the sun.

If you have more time, try the problems on the back.

<http://scaleofuniverse.com/>



Extra time = Interview the teacher

Nov 16-7:37 AM